S/N Unknown

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Kie Y. Ahn et al.

Examiner: Unknown

Serial No.:

Unknown

Group Art Unit: Unknown

Filed:

Herewith

Docket: 1303.033US2

Title:

LOW-TEMPERATURE GROWN HIGH-QUALITY ULTRA-THIN

PRASEODYMIUM GATE DIELECTRICS

## **COMMUNICATION CONCERNING RELATED APPLICATION(S)**

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Applicants would like to bring to the Examiner's attention the following related application(s) in the above-identified patent application:

| Serial/Patent No. 09/944981 | Filing Date August 30, 2001 | Attorney Docket<br>1303.021US1 | Title<br>CRYSTALLINE OR AMOPHOUS<br>MEDIUM-K GATE OXIDES, Y203 AND<br>Gd203 |
|-----------------------------|-----------------------------|--------------------------------|---|
| 09/945535                   | August 30,<br>2001          | 1303.026US1                    | HIGHLY RELIABLE AMORPHOUS<br>HIGH-K GATE OXIDE ZrO2                         |
| 10/028643                   | December 20, 2001           | 1303.030US1                    | LOW-TEMPERATURE GROWN HIGH<br>QUALITY ULTRA-THIN CoTiO3 GATE<br>DIELECTRICS |
| 10/052983                   | January 17,<br>2002         | 1303.031US1                    | HIGHLY RELIABLE AMORPHOUS<br>HIGH-k GATE DIELECTRIC ZrOxNy                  |
| 10/099194                   | March 13, 2002              | 1303.044US1                    | EVAPORATION OF Y-Si-O FILMS FOR MEDIUM-k DIELETRICS                         |
| 10/081439                   | February<br>20, 2002        | 1303.046US1                    | EVAPORATED LaAIO3 FILMS FOR GATE DIELECTRICS                                |
| 10/137499                   | May 2,<br>2002              | 1303.050US1                    | ATOMIC LAYER-DEPOSITED LaAlO3 FILMS FOR GATE DIELETRICS                     |

## COMMUNICATION CONCERNING RELATED APPLICATIONS

Serial Number: Unknown

Filing Date: Herewith

Title: LOW-TEMPERATURE GROWN HIGH-QUALITY ULTRA-THIN PRASEODYMIUM GATE DIELECTRICS

ATOMIC LAYER-DEPOSITED HfAIO3 1303.056US1 10/163481 June 5, FILMS FOR GATE DIELECTRICS 2002 10/163686 June 5, 1303.059US1 Pr2O3-BASED La-oxide GATE DIELECTRICS 2002 1303.061US1 ATOMIC LAYER DEPOSITED 10/209581 July 30, NANOLAMINATES OF HfO2/ZrO2 2002 FILMS AS GATE DIELECTRICS LANTHANIDE DOPED TiOx 1303.069US1 10/219870 August 15, DIELECTRIC FILMS BY PLASMA 2002 **OXIDATION** LANTHANIDE DOPED TiOx 1303.070US1 10/219878 August 15, DIELECTRIC FILMS 2002 ATOMIC LAYER DEPOSITED HISION August 28, 1303.078US1 10/229903 DIELECTRIC FILMS 2002 ATOMIC LAYER DEPOSITED August 29, 1303.079US1 10/233309 LANTHANIDE DOPED TiOx 2002 DIELECTRIC FILMS ATOMIC LAYER DEPOSITED ZR-SN-December 1303.082US1 10/309583 TI-O FILMS USING TiI4 4, 2002 1303.083US1 ATOMIC LAYER DEPOSITED Zr-Sn-10/309935 December Ti-O FILMS 4, 2002 ATOMIC LAYER DEPOSITED 1303.090US1 10/379470 March 4, DIELECTRIC LAYERS 2003 ATOMIC LAYER DEPOSITED ZrAlxOy 1303.092US1 10/403734 March 31, DIELECTRIC LAYERS 2003 ATOMIC LAYER DEPOSITED ZrTiO4 10/420307 April 22, 1303.097US1 **FILMS** 2003 LANTHANIDE OXIDE / HAFNIUM 10/602323 June 24, 1303.101US1 OXIDE DIELECTRIC LAYERS 2003 LANTHANIDE OXIDE / HAFNIUM 1303.107US1 10/602315 June 24, OXIDE DIELECTRICS 2003

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09/779959 February 9, 2001 09/838335 April 20, 2001 09/881408 June 13, 2001 09/908767 July 18,

2001

Respectfully submitted,

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By Applicants' Representatives,

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